



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,431	03/30/2004	Alexei Kojenov	SJO920030085US1	5731

46917 7590 02/02/2007  
KONRAD RAYNES & VICTOR, LLP.  
ATTN: IBM37  
315 SOUTH BEVERLY DRIVE, SUITE 210  
BEVERLY HILLS, CA 90212

EXAMINER
----------

DAYE, CHELCIE L

ART UNIT	PAPER NUMBER
----------	--------------

2161

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/814,431

Applicant(s)

KOJENOV ET AL.

Examiner

Chelcie Daye

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/21/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is issued in response to applicant's amendment filed December 21, 2006.
2. Claims 1-36 are presented. No claims added and none cancelled.
3. Claims 1-36 are pending.
4. Applicant's arguments filed December 21, 2006, have been fully considered but they are not persuasive.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-9,11,13-21,23,25-33,and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Maurer (US Patent Application No. 20030065780) filed September 27, 2002.**

Regarding Claims 1,13,and 25, Maurer discloses a data management method, comprising:

a data storage device having a database comprising a plurality of objects

(Abstract, Maurer);

a digital data processing apparatus coupled to the storage device, wherein the digital data processing apparatus is programmed to perform a data management method ([0040], Maurer), said method comprising:

backing up contents of a source device at a first client station as at least one object of a database stored in a data storage subsystem wherein the at least one object represents an image of the contents of the source device ([0060-0061], Maurer)<sup>1</sup>;

using the at least one object, restoring the contents of the source device from the at least one object to a file in a file system stored on a storage device ([0109-0110], Maurer), said file system comprising a plurality of files and an address table identifying the location of each file on said storage device ([0083-0085], Maurer); and

copying the restored contents of the source device from the file to a target device so that the target device contains the contents of the source device ([0112], Maurer).

Regarding Claims 2, 14, and 26, Maurer discloses the method wherein the file is stored on storage media at a second client station ([0108-0109], Maurer).

Regarding Claims 3,15,and 27, Maurer discloses the method wherein the target device contains the complete contents of the source device ([0074], lines 7-11, Maurer).

Regarding Claims 4,16,and 28, Maurer discloses the method wherein the contents of the source device contained by the target device includes files and a file directory of the source device ([0053], lines 13-16 and [0079], Maurer).

Regarding Claims 5,17,and 29, Maurer discloses the method wherein the data storage subsystem includes a server coupled to the first client station by a network (Fig.1; [0042], Maurer).

Regarding Claims 6,18,and 30, Maurer discloses the method further comprising, using the at least one object, restoring the contents of the source device from the at least one object to a target device so that the target device contains the contents of the source device ([0078-0080, Maurer).

Regarding Claims 7,19,and 31, Maurer discloses the method wherein the source device is a raw storage device ([0120], Maurer).

---

<sup>1</sup> Examiner Notes: Host 113a corresponds to the source device, also throughout the reference the term source computer system is also used to reference host 113a for the source device.

Regarding Claims 8,20,and 32, Maurer discloses the method wherein the source raw storage device is a logical volume of at least one magnetic disk drive ([0139], Maurer).

Regarding Claims 9,21,and 33, Maurer discloses the method wherein the source raw storage device is a partition of a magnetic disk drive ([0053], Maurer).

Regarding Claims 11,23,and 35, Maurer discloses the method wherein said file is a flat file ([0074], Maurer).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 10,12,22,24,34,and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maurer (US Patent Application No. 20030065780) filed September 27, 2002, in view of "Logical vs. Physical File System Backup", By: Hutchinson, Published: 1999; referred to hereinafter as 'Hutchinson'.**

Regarding Claims 10,22,and 34, Maurer discloses the method further comprising mounting the source device ([0079], Maurer). However, Maurer is

Art Unit: 2161

silent with respect to the source device being a read only device wherein write operations to said source device are prevented during said backing up of said source device. On the other hand, Hutchinson discloses the source device being a read only device wherein write operations to said source device are prevented during said backing up of said source device (pg.3, column 2, 1<sup>st</sup> full paragraph, Hutchinson). Maurer and Hutchinson are analogous art because they are from the same field of endeavor of system backup/restore. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Hutchinson's teachings into the Maurer system. A skilled artisan would have been motivated to combine as suggested by Hutchinson at pg. 2, column 2, in order to provide system history and increase resilience to disasters, which means that it is important that the format used to store data must be archival in nature. As a result, maximizing the speed for data backup and minimizing the resources that are used in performing the backup.

Regarding Claims 12,24,and 36, the combination of Maurer in view of Hutchinson, disclose the method wherein said copying uses the UNIX dd command (pg.3, 2<sup>nd</sup> full paragraph, lines 5-9, Hutchinson).

***Response to Arguments***

*Applicant argues, Maurer does not teach that a "redo log file contains the restored contents of a source device".*

Examiner respectfully disagrees. As stated in the office action, Maurer discloses at paragraphs [0109-0110]; wherein information is archived on redo log files and the information that will be used in a restore operation is kept there. Then, the process for restoring volumes begin by determining if the restore is to come from a business continuance volume (BCV) or a tape. After such determination is made cleanup begins. Examiner interprets the volumes within the BCV to correspond to a file. Also, paragraph [0140] of the Maurer reference further discloses where the system discovers, for the physical device, the file system name being restored. As such, examiner believes the limitation as stated above has been fully disclosed.

*Applicant argues, Maurer does not teach "a flat file contains the restored contents of a source device".*

Examiner respectfully disagrees. As stated in the office action, Maurer discloses at paragraph [0074], wherein a map of the logical information to physical devices on the source computer is created in the form of a flat file. Then, the map is used to build a substantially identical logical configuration on the target computer. Since the system allows for the information to be created and stored in the form of a flat file and the flat file format along with the information is backed up from the source computer to the target computer. When the restoring process occurs, the information that has been



Art Unit: 2161

backed up is still within the flat file formation and is therefore manipulated as such. Also, as an alternative example, paragraph [0102] of the Maurer reference, further disclose using the flat file to map the volume information from one computer system to another. Again, since the information being mapped is within a flat file when the process of backing up the system and restoring the system occurs (paragraphs [0103] and [0110]) the information is maintained in the flat file format. As a result, examiner believes the limitation as whole is disclosed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2161

***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye  
Patent Examiner  
Technology Center 2100  
January 23, 2007

*Apu Mofiz*  
Apu Mofiz  
Supervisor, Art Unit 2161